

EMLYN KOSTER, PhD

geologist | museologist | humanist

CURRICULUM VITAE

CONTENTS

Overview	2
Contact	2
Citizenships	2
University Education	2
Career Pathway	3
Honors and Awards	7
Diplomatic Functions	7
Board Chairmanships	8
Board Memberships	8
Committee Chairmanships	8
Advisory Appointments	9
Academic Involvements	9
Museum Reviews and Seminars	10
Museum Sector Innovations	10
Conference Presentations	11
Conferences Organized	13
Print and Video Coverage	13
Influential Experiences	14
Publications in Geology	16
Publications about Museums	19
Publications on the Anthropocene	22
Publications about Giant Screen Films	23
Invited Book Endorsements	24
Recent blog posts	25

OVERVIEW

Enriched by experiences in landscapes and cultures on six continents, including fieldwork in three World Heritage Sites, my transdisciplinary expertise is focused on illuminating the Anthropocene, the new human-dominated chapter in the history of the Earth System with



its rising existential crises. Maintaining links with academia, professional development and research have been integrated with visionary leadership of four major nature and science museums as well as with chairing and other board roles for a variety of national and global nonprofit organizations. Aimed at both professional and public stakeholders, learning from this eclectic journey is chronicled in 100+ publications and communicated by 50+ keynote addresses, including in UN and UNESCO contexts. Peer awards, news coverage and diplomatic engagements have recognized the scientific,

educational and cultural significance of accomplishments. The current platform for partnerships and publishing is an adjunct professorship in Earth, Marine and Atmospheric Sciences at North Carolina State University.

CONTACT

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CITIZENSHIPS

British by birth, Royal Air Force base, Suez Canal Zone, Egypt
Citizen of the United Kingdom, Canada and the United States

UNIVERSITY EDUCATION

- 1971: Special Honors BSc in Geology**
University of Sheffield, UK
- 1977: PhD in Geology**
University of Ottawa, Canada
- 1998: Strategic Perspectives in Nonprofit Management**
Graduate School of Business Administration, Harvard University

CAREER PATHWAYS

1974-75: Consultant, Geo-Analysis Ltd., Ottawa, Canada

Application of geological and hydrological knowledge to bridge and culvert designs for combined snowmelt and rainfall events in a suburban watershed.

1976-77: Assistant Professor, Department of Geology, Loyola Campus of Concordia University, Montreal, Canada

Undergraduate teaching in introductory geology, stratigraphy and paleontology; post-doctoral research.

1977-80: Assistant Professor, Department of Geological Sciences, University of Saskatchewan, Saskatoon, Canada

Undergraduate and graduate teaching in introductory geology, stratigraphy, paleontology and geostatistics; NSERC-funded research; committee work; coordination of public open houses with rock, mineral and fossil displays; invited instruction at a maximum-security federal penitentiary.

1980-86: Project Manager, Coal Exploration, Alberta Geological Survey, Alberta Research Council, Edmonton, Canada

Exploratory research on potential new coalfields; reviews of coal mining permit applications; field research to understand Late Cretaceous depositional environments and dinosaur preservation in Dinosaur Provincial Park, a UNESCO World Heritage Site; course for research staff on geostatistics; advocacy for geotourism.

1986-91: Director, Royal Tyrrell Museum of Paleontology in Drumheller and its Field Station in Dinosaur Provincial Park (UNESCO World Heritage Site), Government of Alberta, Canada



Launched and positioned this major new museum with its collections, research and interpretation mission to quickly become a significant player in the natural history museum field, as an economic development engine and tourism destination;

opened its satellite field station and museum in Dinosaur Provincial Park; integrated the museum into its regional, national and global communities; oversaw high-profile engagements with the Canada-China Dinosaur Project and Tokyo's Hitachi Dinoventure exposition in partnership with Gakken Publishers; attracted its royal appellation by Queen Elizabeth II; successfully proposed 3D heritage exhibits on centers of baggage carousels at Calgary International Airport; and prominent advocacy for heritage tourism. The Royal Tyrrell Museum is among Canada's premier museums, a major destination in Western Canada tourism, and globally renowned in the natural history museum sector.

1991-96: Director General and CEO, Ontario Science Centre in Toronto, Agency of the Provincial Government, Canada



Stabilized the culture, vision and strategy of this centennial institution following its indictment under Ontario's Discriminatory Business Practices Act; tackled deferred maintenance; sped up exhibition and

program renewal with engaging approaches to topical subjects; attracted major

science-and-society events with prestigious partners; integrated Ontario's first IMAX dome theatre in a \$15M facelift of the entry building; immersed the institution in the renaissance of the science museum and science center sector; increased the institution's national and international stature. Canada's largest science center, the Ontario Science Center remains among Toronto's top cultural attractions.

1996-2011: President and CEO, Liberty Science Center, Liberty State Park, Jersey City, NJ, a private nonprofit corporation



Appointment's inaugural reception featured three NJ Governors with congratulatory letters from President Bill Clinton and NY Governor George Pataki. Stabilized this financially troubled young institution with a national-model service contract with the state government to reach at-risk students statewide; orientated the institution towards greater social and environmental responsibility; engaged it in an adaptive and exemplary new way for the museum field

following "9/11"; spearheaded a \$109M expansion and complete renewal project as a public-private partnership to repurpose the institution as a globally-minded resource for living, learning and working in, and caring for, the surrounding region; built its national and international stature to become an award-winning benchmark of innovation and external relevance in the science center field; and oversaw the establishment of a net-profitable international exhibit consultancy. *Parents Magazine* ranked Liberty Science Center among the top five science centers in the US.

July 16, 2007; The New York Times, editorial: *Science for Big Kids*

The updated Science Center...is shiny, new and high-tech, and does not condescend to its visitors ... they've pulled the common denominator up...The new center also tries to make science feel accessible, even local ... To its credit, the center does not shy away from the things we wish were less real-world ... America is falling behind in the global competition to produce and educate scientists ... Liberty Science Center hopes that the chance to interact with real scientists and their work will awaken new enthusiasm in children who might otherwise be napping in the back of their chemistry classrooms. So they offer the opportunity to go out on the water with an oceanographer or chat — via video camera — with a surgical team while watching an operation.

2011-12: President and CEO, Institute for Learning Innovation, Edgewater, MD, a private nonprofit corporation

Founded in 1986 with a mission to advance the philosophy and practice of informal learning, this institution was initially focused on science and then diversified into working with all types of museums and with libraries, aquaria, zoos, parks, and communities. Accepting the Board's invitation to switch my board chairmanship to lead the institution, my onsite focus became its pressing need for a durable business model. Recovery efforts explored relocation in nearby Baltimore for easier client access but the board opted to end the institution's east coast presence.

2013-18: Director, North Carolina Museum of Natural Sciences, State Government



Founded in 1879 and expanded in 2000 and 2012, this institution became internationally renowned with its concerted mission to illuminate human impacts on the natural world with questions of ‘what do we know?’, ‘how do we know?’, ‘what’s happening now?’, and ‘how can the public participate?’. Its stature included species discoveries and new insights about ancient and modern biodiversity; career showcases for students with disabilities; regional branch and

statewide grant program; and national model partnerships with regional universities and with the American Anthropological Association for hosting *Race: Are we so Different?* Led connect-with-nature adventures for members to Alberta and Iceland. Other developments included partnerships with the Jackson Hole Wildlife Film Festival, through the American Alliance of Museums and the US Department of State with natural history museums in India and Mexico, and the National Environmental Education Foundation. This Museum is the state’s most visited museum and school field trip destination as well as Raleigh’s top-rated attraction.

September 2014: Liza Roberts, Editor, WALTER, Special Issue *On a Global Stage: A Day in the Life of the NC Museum of Natural Sciences*

In the last two years, under the leadership of Emlyn Koster, the museum as a whole has grabbed international headlines. Highlights include the discoveries of new species ...and the prestigious White House-awarded Institute of Museum and Library Services Medal. It remains free of charge to all who come, and committed, Koster says, to relevance, education, and change. It seemed the best way for WALTER to tell the story of a place so big, dynamic, and complex would be to become a fly on its walls. Each scientist, administrator, veterinarian, researcher, intern, and educator we met was passionate – not just about his or her own field, but about inspiring the public to know about – and care about – the natural world. Each believed it is an important calling, and one with serious implications. Together, they made it as clear as an October day: the NC Museum of Natural Sciences hopes to make this a better world.

Decadal reaccreditation by the American Alliance of Museums: excerpts from report by peer reviewers from Albuquerque and Los Angeles

... Aspires to be – being asked to be – a leading component of the region’s desire to be seen as an international magnet for innovation and talent ... Forthrightly evolved its interpretative philosophy and strategy to address bigger stories about humans as an inseparable element in the ecosystem of all life, and therefore to be concerned about matters of conservation and sustainability ... This institution does so many things so well ... overall, it is in amazing shape for any museum, much less a state museum.

March 3, 2015: The News & Observer, editorial: A World Opens

Columbus County, two hours due south of Raleigh, in a rural underemployed region of North Carolina might seem like an unlikely place for a satellite of the state Museum of Natural Sciences. But that is exactly why it has become home to its own museum branch. The wise strategy of the state museum is to reach out to rural areas and in particular to the children of those regions to give them a taste of science, a chance to share in the wondrous world of the spectacular museum in downtown Raleigh...The ambition of Emlyn Koster, the museum's director, is for other communities in the state to find space for their own branches ... 'That,' he said, 'would be the ace in the pack' ... Yes, that's it exactly, as that young child who lives without the experience of having a museum within reach might feel a spark that would lead him or her to the goal of being a scientist or to a grander world of learning. About 75 percent of public schoolchildren in Columbus County are poor enough to receive free or reduced priced school lunches. Underemployment is too high, and the region is isolated. But now it is home to part of the North Carolina's much-praised Museum of Natural Sciences. That is a victory.

December 27, 2018: The News & Observer, Opinion by Philip B. Carter, PhD: Koster Led NC's Museum of Natural Sciences to New Heights

<https://www.newsobserver.com/opinion/article223576390.html>

... A senior person of talent, enthusiasm and energy with an Earth Science background, three decades of experience in the successful management of museums in Canada and the U.S. and a worldwide network of colleagues ... We should all be grateful for the tireless leadership Dr. Koster has provided and his role in advancing the international recognition of our state's museums and its natural and cultural resources and the resulting economic impact these have. His successor will be given a marvelous legacy.

2019- : Integrated Activities

Advocacy for adoption of the Anthropocene as transdisciplinary shorthand for human disruption of the Earth System through publications (pages 22-23), presentations, and contributions to a new UNESCO-supported project 'Language of the Anthropocene' <https://en.unesco.org/igcp/projects/732>.

Guest blogger for RK&A Learn with Us, an international consultancy guiding museums and related organizations to achieve impact, e.g. <https://rka-learnwithus.com/museums-during-existential-crises-long-and-wide-lenses-for-directional-thinking/>.

Ambassador for the International Coalition of Sites of Conscience, including guidance to Raleigh's Dorothea Dix Park: <https://www.sitesofconscience.org/en/leaders/emlyn-koster/>, <https://www.sitesofconscience.org/en/membership/dorothea-dix-park/>.

Envisioning of public science events, e.g. <https://today.duke.edu/2019/10/paleontologist-richard-leakey-deliver-lecture-humanity%E2%80%99s-future>.

Facilitation of values-mission-vision-strategy planning for the International Big History Association: www.bighistory.org.

HONORS AND AWARDS

Tracks Award, **Canadian Society of Petroleum Geologists**, Calgary, Canada
High Table Guest, Massey College, University of Toronto, Canada
Chevalier Medal, **L'Ordre des Palmes Académiques**, France
Change the World Award, **Children's Museum of New Jersey**
John Cotton Dana Award, **New Jersey Association of Museums**
Proclamation, Senate President and Acting Governor, State of New Jersey ... for your selfless and generous spirit, and on behalf of the citizens of the Garden State, particularly those affected by the events of September 11, do hereby extend my sincere appreciation
Outstanding Community Service, **Christopher Columbus Society**, Jersey City, NJ
Local Hero, Heroes among Us, **New York Family**, New York, NY
Humanitarian Award, **American Conference on Diversity**, West Orange, NJ
Introduced by the President and CEO, New York Times Company
... for your passion for positive communities, respect for the individual, and a keen sense of what is needed to make our region a better place for all residents
Distinguished Alumnus, **University of Ottawa**, Ontario, Canada
Chairman's Award, **Thomas Alva Edison Annual Awards, New Jersey Research and Development Council**, Jersey City, NJ
... for your untiring efforts and outstanding leadership in advocating the critical role science plays in New Jersey's economic growth and educational systems
Recognition Award, **NJ Arab-American Anti-Discrimination Committee**
... for your dedication to promoting diversity and the rich culture of Arab-Americans
College of Fellows, **Royal Canadian Geographical Society**, Ottawa
Thad Eure, Jr. Memorial Award, **Greater Raleigh Convention and Visitors Bureau**, NC
... for your exceptional service and contributions to the convention and visitor industry in Greater Raleigh



On behalf of the nominee NC Museum of Natural Sciences, National Medal for Museum and Library Service, **White House Ceremony with First Lady Michelle Obama**
<http://www.carolinaparent.com/CP/NC-Museum-of-Natural-Sciences-Receives-National-Medal/>
Alumni Award of Excellence, **Faculty of Science, University of Ottawa**, https://science.uottawa.ca/en/alumni/award_recipients
Nominee for Geoethics Medal, **International Association for Promoting Geoethics**, Italy

DIPLOMATIC FUNCTIONS (examples)

Lead host of visits by Queen of Sweden and Crown Princess of Norway to Royal Tyrrell Museum of Paleontology, **Canada**
Volunteer host to Prince Charles and Lady Diana at World University Games, **Canada**

Co-leader, Canada-China Dinosaur Project, Academia Sinica, **China**
Co-leader, Hitachi Dinoventure, Gakken Publishers, Chiba/Tokyo, **Japan**
Tour of science museum infrastructure by Ministry of Foreign Affairs, **France**
Tour of science museum infrastructure by Ministry of Economic Affairs, **Taiwan**
NATO briefing and F-15 fleet refueling mission, United States Air Force, **NY/VA**
Trade Mission with New Jersey Governor Christine Whitman to **Seoul/Taipei/Tokyo**
Tour of science learning infrastructure by Ministry of Science and Technology, **Costa Rica**
Tour of science learning infrastructure by Zhejiang Association for Science and
Technology, **China**
Host of visit by Canada's Science Minister, Hon. Kirsty Duncan, to NC Museum of Natural
Sciences, **NC**

BOARD CHAIRMANSHIPS

Professional Staff Association, Alberta Research Council, Calgary/Edmonton, Canada
Geological Association of Canada, St. John's, Canada
(Global) **Giant Screen Theater** (now Cinema) **Association**, Holly Springs, NC
Institute for Learning Innovation, Edgewater, MD

BOARD MEMBERSHIPS (*active)

Drumheller Valley Tourism Authority, Alberta, Canada
Drumheller Regional Economic Development Authority, Alberta, Canada
Challenger Center for Space Science Education, Alexandria, VA
New Jersey Travel Industry Association, Trenton, NJ
New York Society of Association Executives, New York, NY
Association of Science-Technology Centers, Washington, DC
Save Ellis Island Foundation, NY/NJ
International Council of Museums in the US, Washington, DC
Waterfront Alliance, NY/NJ
New Jersey Technology Council, NJ
New Jersey Hall of Fame Foundation, NJ
Visitor Studies Association, Granville, MI
Project Rebirth, Lower Manhattan, NY
Grassroots Science Museums Collaborative, NC
***International Big History Association**, Villanova, PA

COMMITTEE CHAIRMANSHIPS (*active)

Education Committee, Geological Association of Canada, St. John's, Canada

Lifelong Learning Committee, Association of Science-Technology Centers, Washington, DC
Professional Development Committee, Association of Science-Technology Centers, Washington, DC
Lifelong Learning Committee, Giant Screen Theater Association, Washington, DC
Global Committee, Association of Science-Technology Centers, Washington, DC
Working Group on the Anthropocene, Museums and Collections in Natural History, International Council of Museums, Paris
***Planning Task Force**, International Big History Association, Villanova, PA

ADVISORY APPOINTMENTS (*active)

Provincial Coal Exploration Review Committee, Alberta, Canada
Marc Garneau Collegiate Institute, Toronto, Canada
School of Museum Studies, University of Toronto, Canada
Leader-in-Residence, Getty Leadership Institute, Los Angeles, CA
Committee on Public Understanding of Science and Technology, American Association for the Advancement of Science, Washington, DC
Institute for Ethical Leadership, Business School, Rutgers University, Newark, NJ
Governor's Transition Subcommittee, Department of State, State of New Jersey
Leader-in-Residence, Noyce Leadership Institute, Fort Worth, TX / La Jolla, CA
Museum Committee, Project Rebirth, National September 11 Memorial Museum, NY
***Ambassadors Circle**, International Coalition of Sites of Conscience, New York
Sustainable Enterprise Advisory Council, Fairleigh Dickinson University, NJ
Natural Sciences Advisory Council, Fetzer Institute, Kalamazoo, MI
Working Group on the Definition of Museum, International Council of Museums, Paris
Working Group on Sustainability, International Council of Museums, Paris
Legacy Committee, Dorothea Dix Park, Raleigh, NC

ACADEMIC INVOLVEMENTS (*active)

Visiting Lecturer, Faculty of Management, **University of Calgary**, Canada
Adjunct Associate Professor, Department of Geology and Geophysics, **University of Calgary**, Canada
Member, Canadian Committee, **Global Sedimentary Geology Program**
Visiting Professor, Department of Geology, **University of Buenos Aires**, Argentina
Research Professor, Department of Civil and Environmental Engineering, **New Jersey Institute of Technology**
Honorary Research Associate Professor, Department of Earth and Planetary Sciences, **Rutgers University**, NJ
Member, Board of Regents, **St. Peter's College**, NJ
Visiting Professor, Institute of Marine and Coastal Sciences, **Rutgers University**, NJ
Seminar to faculty and students, **E.A.R.T.H. University**, Guácimo, Limón, Costa Rica

Inaugural Advisory Council Chair, College of Science and Mathematics, **Montclair State University**, NJ
Seminars, Graduate Museum Studies Program, **Seton Hall University**, NJ
Seminars, Institute of Nonprofit Leadership and Philanthropy, Business School, **Rutgers University**, NJ
*Adjunct Professor, Department of Marine, Earth and Atmospheric Sciences, **North Carolina State University**
Seminar, Graduate Museum Studies Program, **Johns Hopkins University**, DC
Seminar, Cultural Heritage and Museum Studies, **Deakin University**, Australia

MUSEUM REVIEWS AND SEMINARS (examples)

Museum of Victoria (now Melbourne Museum), Melbourne, **Australia**
Orlando Science Center, **FL**
Museum of Science, Miami, **FL**
Tech Museum of Innovation, San Jose, **CA**
Museum of Science and Industry, Chicago, **IL**
Oregon Museum of Science and Industry, Portland, **OR**
National Museum of Science and Industry, London, **UK**
Manitoba Museum, Winnipeg, **Canada**
Science North, Sudbury, **Canada**
Scitech, Perth, **Australia**
Questacon, National Science and Technology Centre, Canberra, **Australia**
Miraikan, National Museum of Emerging Science and Innovation, Tokyo, **Japan**
Canadian Museum of Nature, National Capital Region, **Canada**
Nova Scotia Museums, Halifax, **Canada**

MUSEUM SECTOR INNOVATIONS (examples)

Bringing present-and-future perspectives to nature and science museum leadership:
<https://www.nytimes.com/1996/10/03/nyregion/science-center-puts-a-scientist-at-the-helm.html>; <https://www.wsj.com/articles/SB119620575794305790>;
<https://www.csmonitor.com/The-Culture/Arts/2009/0721/p17s01-algn.html>
Engaging school students in hospital surgeries through live videoconferences:
<https://www.tedmed.com/talks/show?id=7067>
Adapting a museum to be a unique community resource in the aftermath of a disaster and assisting the development of a related national curriculum:
<https://assets.njspotlight.com/assets/11/0714/1808>
https://www.jstor.org/stable/pdf/40479229.pdf?seq=1#page_scan_tab_contents;
https://www.nj.com/news/index.ssf/2011/07/nj_to_release_911_curriculum_t.html

Leveraging the multiple innovations of a museum into a global exemplar:
<http://www.waltermagazine.com/profiles/on-a-global-stage-a-day-in-the-life-of-the-n-c-museum-of-natural-sciences/>
<https://mymediasite.online.ncsu.edu/online/Play/b013928dde384614adc5caf30254bef81d>

Conceiving public townhall meetings on UN Sustainable Development Goals:
<https://naturalsciences.org/calendar/news/forging-a-sustainable-future-museum-hosts-town-hall-featuring-greg-fishel-plus-united-nations-white-house-and-museum-experts/>

Opening pathways to careers in science for students with disabilities:
<https://www.businesswire.com/news/home/20130829005027/en/Inspiring-Students-Disabilities-Succeed-Science-Technology-Engineering#.VDZvgWzD IU>

Leveraging Raleigh's turn to host the scientifically-focused exhibition 'Race: Are we so Different?' into a national benchmark and a potential launchpad for a statewide sequel: <https://www.newsobserver.com/opinion/op-ed/article178156156.html>

Blurring the boundary between science and the humanities:
<https://www.newsobserver.com/opinion/op-ed/article198165404.html>

CONFERENCE PRESENTATIONS (*keynotes)

These invited presentations are in addition to the 1992-2016 conferences of the Association of Science-Technology Centers (ASTC), to the 1999, 2002, 2005, 2008 and 2014 Science Center World Congresses and Summits, and to the 2004-2019 conferences of the American Alliance of Museums (AAM), details of which are in their conference programs.

Logan Club, Geological Survey of Canada, Ottawa, **Canada**
Society of Economic Paleontologists and Mineralogists, Denver, **CO**
Canadian Hunter and Chevron, oil and gas exploration teams, Calgary, **Canada**
*Annual Public Science Lecturer, University of Waterloo, **Canada**
World Tourism Association, Tenerife, Canary Islands, **Spain**
Science Teachers Association of Ontario, Toronto, **Canada**
Education for Science Literacy, National Museum of Science and Industry, London, **UK**
Quality Management in Urban Tourism, Balancing Business and Environment, University of Victoria, **Canada**
*When Science becomes Culture, Montreal, **Canada**
Tourism and Culture in the 21st Century, University of Northumbria, Newcastle, **UK**
*National Science and Technology Museum, Kaohsiung, **Taiwan**
*Geological Association of Canada, Annual Meeting, Ottawa, **Canada**
*Moving the Economy Forward: Stimulating Growth in New Jersey, Harrington Communications LLC, Elizabeth, **NJ**
*Culture and Tourism: Perfect Together, New Jersey Association of Museums, **NJ**
*Social and Environmental Responsibility, New Jersey Clean Air Summit, **NJ**
Geraldine R. Dodge Foundation Lecture, Liberty Science Center, **NJ**
*Section on Geological Sciences, New York Academy of Sciences, **NY**
*Honors Colloquium, New Jersey Institute of Technology, **NJ**

- *Annual New Jersey Science Teachers Convention, Somerset, **NJ**
- *New Jersey Business Industry Science Education Consortium, Trenton, **NJ**
- *Mexico Association of Science Centers and Science Museums, Cocoyoc, **Mexico**
- *Canadian Museums Association, Winnipeg, MB, **Canada**
- *New Jersey State Museums Association, **NJ**
- *Gensler New York, Annual Vice Presidents Meeting, **New York City**
- *Asia-Pacific Network of Science and Technology Centres, Perth, **Australia**
- *Social Uptake of Science and Technology, Maloka, Bogota, **Colombia**
- *Mexico Association of Science Centers, Chilpancingo, **Mexico**
- *National Science and Technology Week, San Jose, **Costa Rica**
- *Asia Pacific Network of Science and Technology Centres, Bangkok, **Thailand**
- *Scholarly Publishing Society, Philadelphia, **PA**
- *Faculty of Science, University of Ottawa, Awards Ceremony, Ottawa, **Canada**
- *Science Communications, National Museum of Nature and Science, Tokyo, **Japan**
- Future of the Ocean, Urban Coast Institute, Monmouth University, **NJ**
- *New York State Museums Association, Albany, **NY**
- *Zhejiang Association for Science and Technology, Hangzhou, **China**
- *National Docent Symposium, Art Gallery of Ontario, Toronto, **Canada**
- Social Media, Mobiles and Museums, New Brunswick, **NJ**
- Defining Museum Ethics, Institute of Museum Ethics, Seton Hall University, **NJ**
- *National Center for Women in Information and Technology, New York University, **NY**
- Relevance and Sustainability, Nonprofit Executive Leadership, Rutgers Business School, Rutgers University, **NJ**
- Applying the Science of Learning to the Learning of Science: New Civic Engagements and Responsibilities, National Science Foundation, **NJ**
- *Hot Science, Global Citizens: The Agency of the Museum Sector in Climate Change Interventions, Sydney, **Australia**
- The Anthropocene: A Geological Perspective, Geological Society of America, Minneapolis, **MN**
- *Informal Learning, Museum Education Program, George Washington University, Washington, **DC**
- *Museum Leadership Program, Bank Street College of Education, New York, **NY**
- Museums and Media 3.0, Jackson Hole Wildlife Film Festival, Denver, **CO**
- Global Gathering, Fetzer Institute, Assisi, **Italy**
- *New England Museums Association, Burlington, **VT**
- *Science Centre World Summit, Mechelen, **Belgium**
- *Asia-Pacific Network of Science and Technology Centers, **Brunei**
- *The Anthropocene: Natural History Museums in the Age of Humanity, Carnegie Museum of Natural History, Pittsburgh, **PA**
- *International Symposium on Climate Change and Museums, Critical Approaches to Management and Engagement, Manchester Museum, **UK**
<https://naturemanchester.wordpress.com/2018/03/13/announcing-the-programme-for-international-symposium-on-climate-change-and-museums-manchester-11-13-april/>
- *Concluding session at UN Climate Change Conference in Bonn, **Germany**
<https://unfccc.int/process-and-meetings/conferences/bonn-climate-change-conference-april-2018/events-and-schedules/mandated-events/mandated-events-during-sb-48/ace-workshop-on-ways-of-enhancing-the-implementation-of-education-training-public-awareness-public>

*Opening discussion with David Christian of Macquarie University, Australia at International Big History Association Conference at Villanova University, **PA**
https://www.ted.com/talks/david_christian_big_history?language=en
Teaching the Environment, National Humanities Center, Research Triangle Park, **NC**
<https://nationalhumanitiescenter.org/beyond-despair-next-steps-environmental-humanities/>; https://www.youtube.com/watch?v=s9Xxg0uniDE&feature=emb_title
Living Environmentalism, Earth Day at 51, Johns Hopkins University, **MD**
<https://www.youtube.com/watch?v=1nong81HBX0>.
Being a Good Ancestor, International Big History Association, Online Symposium as part of Annual Members Meeting, **Global/Zoom**
Big History and Global Evolution, Fourth International Symposium, Lomonosov Moscow State University, **Russia/Zoom**

CONFERENCES ORGANIZED

Earth System: Geology Lessons for Our Future, 1996, Ontario Science Centre / Canadian Institute for Advanced Research, Toronto, Canada
<http://www.whaton.uwaterloo.ca/waton/lessons.html>
Giant Screen Films and Lifelong Learning, 1999, Giant Screen Theater Association / National Science Foundation, New York, NY
<https://www.giantscreencinema.com/Portals/0/2008%20Symposium%20final%20report.pdf?ver=2013-12-28-113420-917>
When the Earth Shakes, 2005, Geological Association of Canada, Halifax, Canada
Society and Science: The Greater Educational Potential of Giant Screen Experiences, 2008, Giant Screen Cinema Association / National Science Foundation, Jersey City, NJ
<http://www.informalscience.org/connecting-society-science-greater-potential-giant-screen-experiences>
H₂O₉ Forum, Henry Hudson 400, 2009, Liberty Science Center / Netherlands Water Partnership, Jersey City, NJ <http://www.henryhudson400.com/h209/>

PRINT AND VIDEO COVERAGE (examples)

October 3, 1996: **The New York Times**, *Science center puts a scientist at the helm*
<https://www.nytimes.com/2007/07/20/arts/design/20libe.html>
<https://www.nytimes.com/1996/10/3/nyregion/science-center-puts-scientist-at-the-helm.html>
1997: **University of Ottawa Alumni Magazine Tabaret: Koster's grand stand**
July 20, 2007: **The New York Times**, *Touch Me Feel Me Science*
<https://www.nytimes.com/2007/07/20/arts/design/20libe.html>
August 25, 2005: **The New York Times**, *Science center renovations will evict unusual exhibits*

- October 5, 2005: **The Star-Ledger**, Op-ed by Emlyn Koster, *What in creation ...? You can't interject faith into study of life without becoming unscientific*
- July 8, 2007: **The Star-Ledger**, Op-ed by Emlyn Koster, *The need to know – Liberty Science Center re-imagines museum's role in society*
- July 16, 2007: **The New York Times**, Editorial Notebook, *Science for Big Kids*
- November 28, 2008: **The Wall Street Journal**, *Reinventing the science museum – a cultural conversation with Emlyn Koster*
<https://www.beyondcriticism.com/3102/reinventing-the-science-museum>
- May 20, 2009: **The New York Times**, Statement by Emlyn Koster, *In a new age for science, a new role for science museums*
- July 21, 2009: **Christian Science Monitor**, *Museums' new mantra, connect with community: relevance, responsiveness, interactivity is the new road map to success*
<http://www.csmonitor.com/The-Culture/Arts/2009/0721/p17s01-aln.html>
- October 22, 2007: **Recorder Community Newspapers, Out & About**, *Science center CEO sees broad role for museum*
- October 27, 2010: **TEDMED**, San Diego, CA
<https://www.youtube.com/watch?v=wPZtM1eS9Yk>
- December 2010: **New York Family**, *Emlyn Koster, Heroes among us, cultivating a love of science in learners of all ages* <https://issuu.com/newyorkfamilymag/docs/120110>
- April 2013: **Triangle Downtowner Magazine**, *10 Questions with Emlyn Koster*
<http://science.unctv.org/content/emlyn-koster-phd-nc-museum-natural-sciences>
- February 6, 2018: **The News & Observer**, Op-ed by Emlyn Koster, *Museum unites science and humanities in Raleigh*
<https://www.newsobserver.com/opinion/op-ed/article198165404.html>
- April 12, 2018: **Reuters**: *From ghost boats to water treasures, museums seek to spur climate action*
<https://www.reuters.com/article/us-climatechange-science-art/from-ghost-boats-to-water-treasures-museums-seek-to-spur-climate-action-idUSKBN1HJ1E1>
- December 27, 2018: **The News & Observer**, *Koster led NC's Museum of Natural Sciences to new heights*
<https://www.newsobserver.com/opinion/article223576390.html>
- January 26, 2019: **The News & Observer**, Op-ed by Emlyn Koster, *We need a new 'giant leap for mankind'*
<https://www.newsobserver.com/opinion/article225097790.html>

INFLUENTIAL EXPERIENCES

Growing up next to the eroding coast of the English Channel fueled an early fascination in geographical changes as sea level rose after the last Ice Age advance and with the **engineering attempts** to control cliff recession and beach changes.

Field season in Kluane National Park (UNESCO World Heritage Site), Yukon, Canada, to advance understanding of hydrologic and sedimentary processes of **powerful glacier-fed rivers** and their recognition in the geological record.

Rafting expedition down the **Grand Canyon of the Colorado River** to understand its geology, biology, archeology, and exploration history.

Invited teaching of a semester course in introductory geology to inmates at a federal **maximum-security prison** to broaden the community extension profile of the University of Saskatchewan as a national exemplar.

Field study of the **Mississippi Delta**, by air and boat, to understand its natural processes and diversionary works by the US Corps of Engineers.

Highway journeys and field excursions between Vancouver Island and Cape Breton, Whitehorse to Mile 1054 on the **Alaska Highway**, and the St. John's region of Newfoundland to learn about Canada's diverse landscapes and cultures.

Fieldwork in the badlands of Dinosaur Provincial Park (UNESCO World Heritage Site), Alberta, Canada, and traverse of the **Gobi Desert** of Inner Mongolia to advance understanding of dinosaur preservation in Late Cretaceous environments.

Field trip along the coast highway between **Melbourne and Sydney**, Australia, to understand the region's geology and biology.

Following development of the pioneering exhibition *Understanding Ourselves, Understanding Each Other* at the Ontario Science Centre where I was CEO, invited chairing of the annual Distinguished Annual Lecturers of the **American Psychological Association** at the 1993-1999 conferences of the Association of Science-Technology Centers.

Preparations for a public program to mark the 25th anniversary of NASA's Apollo to the Moon mission included an opportunity with June Scobee-Rodgers, widow of Commander Dick Scobee of the ill-fated Challenger Shuttle flight which had the first teacher in its crew, to meet **Senator John Glenn** to hear his recollections about being America's first astronaut.

'Principal-for-a-Day' at Booker T. Washington Middle School in Manhattan as an invitee of the PENCIL nonprofit organization to gain insights into the challenges and opportunities of **New York City public schools**.

Participation in policy debates of the United Nations Association of the United States at the **United Nations** in New York City to better understand the interplay of national and global interests.

Cultural tipi-yurt exchange in the Tian Shan Mountains of southwest China followed by an expedition across the Gobi Desert from Urumqi, Xinjiang to Beijing as part of the Canada-China Dinosaur Project involving Alberta's Royal Tyrrell Museum, the then National Museum of Man and Nature of Canada, and China's Academia Sinica to experience the **anthropological and paleontological links between western Canada and northern China**.

Shuttle launch at Cape Canaveral of **Canada's first woman astronaut**, Dr. Roberta Bondar, and hosting of her videoconference while aboard with Canada's Prime Minister at the Ontario Science Centre to maximize the public grasp of this moment in history.

Land-sea expedition in the **Gulf of California** region of Mexico with Summerhays Films to advise on the development of its award-winning giant screen film *Ocean Oasis*.

Following the **terrorist attacks on Manhattan's World Trade Center** on September 11, 2001, taking care of Liberty Science Center staff in the immediate aftermath and adapting the Center to be a 6-month resource for the nearby State Assistance Center serving the next-of-kin of NJ's 700 victims: while these were immediate decisions arising from Liberty Science Center's socially responsible culture, the outcome also served to inspire other museums to turn their attention and resources to communities when they are impacted by a disaster.

As incoming president of the Giant Screen Theater Association (GSTA), **ambassadorial travel to Japan** to update local museum and theater officials that continuing with GSTA's plan to bring its next annual conference to Osaka (the first IMAX film was featured at its 1970 World Expo) had become financially unfeasible, and then to co-lead the unification of the GSTA with the Los Angeles based Large Format Cinema Association (LFCA) in an unprecedented move towards greater efficiency and economy for members worldwide of both former associations.

Educational travels along the British Columbia coast to Alaska, from the Shetland and Faroe Islands to Iceland, from Copenhagen to St. Petersburg, and from Venice through **Aegean Sea volcanism** to the first Olympic Games site and to Ephesus.

Invited review of an exhibition entitled **1,000 Years of Islamic Science Rediscovered** at the Ibn Battuta Mall in Dubai, UAE, and then the logistical coordination of its adaptation to be the inaugural temporary exhibition at the expanded and renewed Liberty Science Center, located opposite the World Trade Center site in Manhattan and in cooperation with the region's Arab-American community.

Following an invitation for the **Red Cross** to recruit volunteers in the exhibition *Nature Unleashed* at Liberty Science Center, tours with their officials of flood-ravaged parts of New Jersey following Hurricane Irene through site visits and briefings on their relief operations.

Following a keynote presentation at an international symposium of climate change and museums at the UK's Manchester Museum, the **UN Office** in Bonn, Germany, invited me to present to its Action for Climate Empowerment conference which led to updating of the **Paris Climate Agreement** to add museums as an agency for educating the public about climate change.

Invited visit to Dharamsala, India to learn from the **Dalai Lama** and about the history of the Tibetan Government in Exile as part of three days of talks with two dozen nonprofit colleagues about designing for empathy in museum experiences

PUBLICATIONS IN GEOLOGY

These begin in the 1970s with PhD and post-doctoral research focused on river transport and deposition of gravel in Kluane National Park in Yukon, a UNESCO World Heritage Site, and laboratory simulations at the Geological Survey of Canada. They continue with articles on field research to interpret ancient coastal plain environments in Alberta's Dinosaur Provincial Park, a UNESCO World Heritage Site. They end with reports on a variety of other research investigations as involvements in the museum profession intensified and preparations were underway to be the 50th anniversary president of the Geological Association of Canada in 1996-97.

Mountain Rivers

Koster, E., 1974. Flume studies of isolate gravel fabric on a sand bed. Geological Survey of Canada, Paper 74-1, p.247-249.

Koster, E., 1977a. Experimental studies of coarse-grained sedimentation. PhD Thesis, Department of Geology, University of Ottawa, 221p.

Koster, E., 1977b. Paleohydraulic reconstruction of coarse-grained alluvium using transverse ribs. Geological Society of America, NE Section, Binghamton, Abstracts with Programs, p.287-288.

Koster, E., 1978a. A flume study of fluvial gravel fabric. In: A. Miall (Ed.), *Fluvial Sedimentology*. Canadian Society of Petroleum Geologists, Memoir 5, p.853.

- Koster, E., 1978b. Transverse ribs: their characteristics, origin and paleohydraulic significance. In: A. Miall (Ed.), *Fluvial Sedimentology*. Canadian Society of Petroleum Geologists, Memoir 5, p.161-186.
- Koster, E., 1982a. Gravels and conglomerates. *International Union of Geological Sciences, Episodes*, v.1982, no.2, p.7-8.
- Koster, E. 1982b. Fluvial conglomerate: an assessment of recent research. 11th International Sedimentological Congress, Hamilton, Abstracts, p.50.
- Koster, E., Rust, B. and Gendzwill, D., 1980. The ellipsoidal form of clasts with practical applications to fabric and size analyses of fluvial gravels. *Canadian Journal of Earth Sciences*, v.17, p.1725-1739.
- Koster, E. and Steel, R., (Eds.) 1984. *Sedimentology of Gravels and Conglomerates*. Canadian Society of Petroleum Geologists, Memoir 10, 441p.
- Rust, B. and Koster, E., 1984. Coarse alluvial deposits. In: R. Walker (Ed.), *Facies Models*, 2nd edition. Geoscience Canada Reprint Series 1, p.53-68.

Dinosaur Environments

- Currie, P. and Koster, E., (Eds.). 1987. Fourth symposium on Mesozoic Terrestrial Ecosystems, Drumheller, August 10-14, 1987. Tyrrell Museum of Palaeontology, Canada, Occasional Paper 3, 239p.
- Koster, E., 1982. Sedimentological and stratigraphic research in, and related to, Dinosaur Provincial Park - background, progress and plans. In: P. Currie (Ed.), *Field Report for 1981*, Provincial Museum of Alberta, Palaeontology Division, p.28-40.
- Koster, E., 1983a. Sedimentological research in Dinosaur Provincial Park. In: P. Currie (Ed.), *Report on Fieldwork, 1982*, Tyrrell Museum of Palaeontology, p.1-34.
- Koster, E., 1983b. Sedimentology of the Upper Cretaceous Judith River (Belly River) Formation, Dinosaur Provincial Park, Alberta. *Canadian Society of Petroleum Geologists, The Mesozoic of Middle North America, Fieldtrip Guidebook No.1*, 121p.
- Koster, E., 1983c. Paleochannel sedimentology in the upper Judith River Formation (Campanian): Dinosaur Provincial Park, SE Alberta. *Canadian Society of Petroleum Geologists, The Mesozoic of Middle North America, Program with Abstracts*, p.50.
- Koster, E., 1983d. Sedimentology of Campanian paleochannels, Dinosaur Provincial Park, southeast Alberta. *Canadian Society of Petroleum Geologists, Reservoir*, v.10, no.10. p.1-2.
- Koster, E., 1984a. Sedimentology of a foreland coastal plain: Upper Cretaceous Judith River Formation at Dinosaur Provincial Park. *Canadian Society of Petroleum Geologists, Field Trip Guidebook*, 115p.
- Koster, E., 1984b. Sedimentology of paleochannels on a foreland coastal plain – Judith River Formation (Upper Cretaceous), southeast Alberta. *American Association of Petroleum Geologists Bulletin*, v.68, no.4, p.496.
- Koster, E., 1985a. Channel processes, vertebrate taphonomy and architecture of an Upper Cretaceous coastal plain sequence - southeast Alberta (Abstract). 3rd International Fluvial Sedimentology Conference, Fort Collins, Abstracts, p.24-25.
- Koster, E., 1985b. Review – Modern and Ancient Fluvial Systems, J. Collinson and J. Lewin (Eds.). *International Association of Sedimentologists, Special Publication 6 (1983)*. Geoscience Canada, v.12, no.2, p.80-81.

- Koster, E., 1986a. Architecture of point bar units: new insights from badlands outcrop of Upper Cretaceous coastal plain sediments in western Canada. 12th International Sedimentological Congress, Canberra, Abstracts, p.167.
- Koster, E., 1986b. Practical definition of 'marine influence' in estuarine reaches of low-gradient river systems. 12th International Sedimentological Congress, Canberra, Abstracts, p.168.
- Koster, E., 1986c. Review – Sedimentology of Coal and Coal-bearing Strata. R. Rahmani and R. Flores (Eds.). International Association of Sedimentologists, Special Publication 7 (1984). Geoscience Canada, v.13, no.2, p.127.
- Koster, E., 1987a. Vertebrate taphonomy applied to the analysis of ancient fluvial systems. In: Ethridge, F. and Flores, R. (Eds.), Recent Developments in Fluvial Sedimentology, Society of Economic Paleontologist and Mineralogists, Special Publication 39, p.159-168.
- Koster, E., 1987b. Recognizing onshore effects of tidal circulation in the Western Interior Seaway. Geological Association of Canada, Saskatoon. Program with Abstracts, v.12, p.64.
- Koster, E. and Currie, P., 1986. Sedimentological Background. In: B. Naylor (Ed.), Dinosaur Systematics Symposium, Field Trip Guidebook to Dinosaur Provincial Park, 1986, Tyrrell Museum of Palaeontology, Drumheller, 56p.
- Koster, E. and Currie, P., 1987. Upper Cretaceous coastal plain sediments at Dinosaur Provincial Park, southeast Alberta. In: S. Beus (Ed.), Decade of North American Geology Commemorative Field Guide, Rocky Mountain Section, Geological Society of America, v.2, p.9-14.
- Koster, E., Currie, P., Eberth, D., Brinkman, D. Johnston, P. and Braman, D., 1987. Sedimentology and palaeontology of the Upper Cretaceous Judith River/Bearpaw Formations at Dinosaur Provincial Park, Alberta. Geological Association of Canada, Saskatoon, Field Trip Guidebook, 130p.
- Thomas, R., Smith, D., Wood, J., Visser, J., Calverley-Range, E. and Koster, E., 1987. Inclined heterolithic stratification: terminology, description, interpretation and significance. Sedimentary Geology, v.53, p.123-179.

Other Regional Geology

- Jerzykiewicz, T., Currie, P., Eberth, D., Johnston, P., Koster, E. and Zheng, J-J. 1993. Djadokhta Formation correlative strata in Chinese Inner Mongolia: an overview of the stratigraphy, sedimentary geology, and paleontology and comparisons with the type locality in the pre-Altai Gobi. Canadian Journal of Earth Sciences, v.30, p.2180-2195.
- Koster, E. 1979. Review of 'Geology of Saskatchewan - Historical Approach' by A. Gordon, Western Extension Publishers. Saskatchewan Teachers' Society, Accelerator Magazine, v.13, no.4, p.10-11.
- Koster, E. 1983. Alberta Research Council's coal geology research program. For Alberta Energy and Natural Resources, 52p.
- Stott, D., Caldwell, W., Cant, D., Christopher, J., Dixon, J., Koster, E., McNeil, D. and Simpson, F. 1993. Cretaceous; Subchapter 4I. In: Sedimentary Cover of the Craton in Canada, D. Stott and J. Aitken (Eds.): Geological Survey of Canada, Geology of Canada, no.5, p.358-438. [Also published by the Geological Society of America, The Geology of North America, v. D-1.]

Geology and Society

- Hitchon, B., Sauveplane, C., Bachu, F., Koster, E. and Lytviak, A. 1989. Hydrogeology of the Swan Hills Area, Alberta: Evaluation for Deep Waste Injection. Alberta Research Council Bulletin 58, 79p.
- Koster, E. 1981. Impact of control structures on hydrology and sedimentation – South

Saskatchewan River at Saskatoon, Canada. 2nd International Fluvial Sedimentology Conference, Keele, Abstracts, p.64.

Koster, E. 1990. Obituary, Brian R. Rust (BA Oxford, PhD Edinburgh), 1936-1990. Geolog, Geological Association of Canada, v.19, part 5, p.26.

Koster, E. 1994. Increasing the efficiency and effectiveness of our public education workload. Geological Association of Canada, Annual Meeting, Waterloo, Ontario, Program with Abstracts, p.59.

Koster, E. 2000. The concept of ecotourism and the socially responsible stance of the geological profession. Geological Association of Canada Annual Meeting, Calgary, Abstracts Volume, on disk.

Koster, E., Roed, M., Smith, D. and Gilders, R. 1976. Hydrologic and hydrogeologic effects of urbanization, St. Lawrence Lowlands. Geological Association of Canada, Edmonton, Program with Abstracts, p.82.

Koster, E., Walker, E. and Schroedl, A. 1978. Procedures and results of geoarchaeological studies at the Gowen Site, Saskatoon, Saskatchewan. Geological Association of Canada/Geological Society of America, Toronto, Program with Abstracts, p.438.

PUBLICATIONS ABOUT MUSEUMS

Spanning the last three decades while CEO of four museums, these begin with journal articles and book chapters focused on advancing the sector's grasp of what external relevance entails. They continue into contributions that advance the philosophy and practice of museums of science and nature, including explanations of developments at the Royal Tyrrell Museum of Paleontology, Ontario Science Centre, Liberty Science Center, and the North Carolina Museum of Natural Sciences. This section ends with a profile of how a museum can assist its community and the field as a whole after a major disaster and ends with articles on several other topics.

External Relevance

Koster, E., 1995a. The human journey and the evolving museum. In: Museums: Where Knowledge is Shared, M. Coté and A. Viel (Eds.), Sociétés des musées québécois and Musée de la civilisation, Canada, p.81-89.

Koster, E., 1995b. Exchanging experiences and perspectives. In: Museums and the Paradox of Change, R. Janes (Ed.), Glenbow Museum, p.134-137.

Koster, E., 1999. In search of relevance – science centers as innovators in the evolution of museums. In: America's Museums, S. Graubard (Ed.). Daedalus, American Academy of Arts and Sciences, v.128, no.3, p.277-296. [Reprinted in Spanish in 2000, Encuentros con la ciencia de los museos y centros de ciencia, Conference Proceedings, Asociación Mexicana de Museos y Centros de Ciencia y Tecnología, J.A. Chamizo (Ed.); also a reading assignment for Harvard University's Summer School, 2008, Museum Studies S-100.]

Koster, E., 2000. Meeting community needs: science centers and social responsibility. Dimensions, Association of Science-Technology Centers, January/February, p.7.

Koster, E., 2003. The relevancy-sustainability linkage for museums. Hand to Hand, Association of Children's Museums, Fall, p.3, 7.

- Koster, E., 2006. The relevant museum: a reflection on sustainability. *Museum News*, American Association of Museums, May/June, p.67-70, 85-90. [<https://rka-learnwithus.com/wp-content/uploads/2017/02/aam-museum-2006-emlyn-koster.pdf> includes its cited literature; reprinted in 2012 as one of 44 “exemplary works” in the second edition of ‘Reinventing the Museum: The Evolving Conversation on the Paradigm Shift’, edited by G. Anderson.]
- Koster, E., 2008. Still in search of relevance. *Dimensions*, Association of Science-Technology Centers. September/October, p.8-10.
- Koster, E., 2010. Evolution of purpose in science museums and science centers. In: *Hot Topics, Public Culture, Museums*. F. Cameron and L. Kelly (Eds.), Cambridge Scholars Publishing, Ch.4, p.76-94.
- Koster, E., 2012. The relevant museum: A reflection on sustainability. In: *Reinventing the Museum: The Evolving Conversation on the Paradigm Shift*, G. Anderson (Ed.). AltaMira, p.202-211.
- Koster, E., 2013. New needs for new times. In: *Museums and the Paradox of Change*, R. Janes (Ed.), 3rd edition, Routledge, p.205-215.
- Koster, E., 2016. Foreword. In: *Fostering Empathy in Museums*, E. Gokcigdem (Ed.), Rowman & Littlefield, p.vii-xi.
- Koster, E., 2019. North Carolina Museum of Natural Sciences: in pursuit of relevance. In: *Mission Matters, Relevance and Museums in the 21st Century*, G. Anderson (Ed.), Rowman & Littlefield, p.89-94, 127-128.
- Koster, E., Introspection: the new imperative. In: R. West and K. Wise (Eds.), *Museums and the Coronavirus Pandemic*. *Informal Learning Review*, Special Issue, 21-22.
- Koster, E. and Baumann, S., 2005. Liberty Science Center in the United States: a mission focused on relevance. In: *Looking Reality in the Eye: Museums and Social Responsibility*, R. Janes and G. Conaty (Eds.), University of Calgary Press, Canada, p.85-111.
- Koster, E. and Falk, J., 2007. Maximizing the external value of museums. *Curator: The Museum Journal*, v.50, no.2, p.191-196.
- Koster, E. and Pendergraft, L., 2015. Bringing the mission to the community: state museum opens a satellite in an underserved rural region. *Informal Learning Review*, v.131, p.11-15.
- Koster, E. and Schubel, J., 2007. Raising the relevancy bar at aquariums and science centers. In: *In Principle, In Practice*, J. Falk, L. Dierking and S. Foutz (Eds.), AltaMira, p.197-220.
- Trautmann, C., Grinell S., Cavendish, K. and Koster, E., 2009. Global warming: next steps for the science center field. *Dimensions*, Association of Science-Technology Centers, September/October, p.16-17, 19.

Nature and Science Museums

- Bell, J., Chesebrough, D., Cryan, J., and Koster, E., 2016. Museum-university partnerships as a new platform for public engagement with scientific research. *Journal of Museum Education*, v.41, no.4, p.293-306. [<http://informalscience.org/perspectives/blog/next-generation-museum-university-partnerships>]
- Einseidel, E., Koster, E., Schiele, B., and Williams, R., 1994. Science culture in Canada. In: B. Schiele (Ed.), *When Science Becomes Culture*. Éditions MultiMondes, p.85-118. [Also published in French by the Université du Québec à Montréal and in France by the Programme Rhône Alpes.]
- Koster, E., 1988a. Dinosaurmania and cultural tourism: the Alberta Government’s Tyrrell Museum of Palaeontology. *Interpretation Canada*, Ottawa, Proceedings, p.233-237.

- Koster, E., 1988b. Field Station of the Tyrrell Museum of Palaeontology: research and public programs in Dinosaur Provincial Park. Alberta: Studies in Arts and Sciences, v.1, p.86-108.
- Koster, E., 1993. Summary of the workshop: thoughts for discussion. In: Science and Technology in Canadian Museums: A Neglected Heritage. In: H. Arai and M. Burt (Eds.), Canadian Museum of Nature, Ottawa, p.102-105.
- Koster, E., 1994. Science, technology, and lifelong learning in the 21st century. In: When Science Becomes Culture. B. Schiele (Ed.), Université du Québec à Montréal, Canada. On disk.
- Koster, E., 1996. Science culture and cultural tourism. In: Culture as the Tourist Product. M. Robinson, N. Evans, and P. Callaghan (Eds.), Tourism and Culture Towards the 21st Century, Conference Proceedings, University of Northumbria at Newcastle, England, p.227-238.
- Koster, E., 1998. Conference Proceedings, National Science and Technology Museum, Kaohsiung, Taiwan, ROC, March 19-21, p.114-124. [Reprinted in Chinese in Technology Museum Review, National Science and Technology Museum, Kaohsiung, Taiwan, v.2, no.3, p.85-108.]
- Koster, E., 1999. Liberty Science Center: chronicles of leadership. In: Hudson County – The Left Bank, J. Lovero (Ed.), American Historical Press, Sun Valley, California, p.148-149.
- Koster, E., 2001. Statement: Hearing before the Subcommittee on Telecommunications and The Internet of the Committee on Energy and Commerce, US House of Representatives, 107th Congress, First Session, Serial No.107-18, March 8, p.64-67.
- Koster, E., 2004. If we could start again. Dimensions, Association of Science-Technology Centers, May/June, p.3.
- Koster, E., 2006. The attendance treadmill: best gauge of science center fitness? Dimensions, Association of Science-Technology Centers, May/June, p.19.
- Koster, E., 2007. The reinvented Liberty Science Center. LF Examiner, v.10, no.7, p.1, p.6-9.
- Koster, E., 2011a. Foreword. In: Creativity and Technology: Social Media, Mobiles and Museums. J. Katz, W. LaBar and E. Lynch (Eds.), Museums Etc., 2011, p.12-15.
- Koster, E., 2011b. Diving in: introducing the public and educators to the Hudson River estuary. The Tidal Exchange. Newsletter of the New York – New Jersey Estuary Program. No.36, p.12-13.
- Koster, E., 2012. Broadening the reflections on science center attendance. Informal Learning Review, v.113, p.26-28 (literature references fully listed in Informal Learning Review, v.114, p.27).
- Koster, E., 2019. North Carolina Museum of Natural Sciences: in pursuit of relevance. In: Mission Matters, Relevance and Museums in the 21st Century, G. Anderson (Ed.), Rowman & Littlefield, p.89-94/127-128.
- Libeau, R. Gyamfi. P., Koster, E. and Wizewich, K., 2001. Supporting and documenting choice in free-choice learning environments. In: Free-Choice Science Education – How We Learn Science Outside of School, J. Falk (Ed.), Teachers College Press, New York, p.133-148.
- Schiele, B. and Koster, E. (Co-eds.), 1994. When Science Becomes Culture. Éditions Multimondes, 651 pp.
- Schiele, B. and Koster, E. (Co-Eds.), 1998a. La Révolution de la Muséologie des Sciences. Presses Universitaire de Lyon, France, and Éditions MultiMondes, Québec, Canada, 493p.
- Schiele, B. and Koster, E. (Co-Eds.), 1998b. Vers une education scientifique et technique permanente. La Révolution de la Muséologie des Sciences. Presses Universitaire de Lyon, France, and Éditions MultiMondes, Québec, Canada, p.326-341.
- Schiele, B. and Koster, E., (Co-Eds.) 2000. Science Centers in this Century. Éditions MultiMondes, Québec, Canada, 651p.

Disaster Relief

Gaffney, D. and Koster, E., 2016. Learning from the challenges of our time: The Families of September 11 and Liberty Science Center. In: *Fostering Empathy in Museums*, E. Gokcigdem (Ed.), Rowman & Littlefield, p.239-263. [This refers to Gaffney, D., Dunne-Maxim, K. and Cernak, M. 2002. The science center as sanctuary. *Journal of Museum Education*, Winter, p.22-27.]

Koster, E., 2002. A disaster revisited. *MUSE*, Canadian Museums Association, September/October, v.20, no.5, p.26-27.

Koster, E. and Peterson, J., 2002. Difficult experiences: a museum forum on the lessons of September 11. *Dimensions*, Association of Science-Technology Centers, May/June, p.3.

Other Topics

Koster, E., 1994a. Reorganization: what?, why? how?: the Ontario Science Centre example. *MUSE*, Canadian Museums Association, v.11, no.4, p.5-10. [Translated in Taiwan, ROC, July 1995, v.9, no.3, p.15-17. [Also used as course material, 1997-2002, for the distance education course 'Human Resource Management in Cultural Heritage Institutions' of the Division of Continuing Studies, University of Victoria, Canada.]

Koster, E., 1994b. Culture-tourism partnerships: the role of the modern museum. In: *Management in Urban Tourism: Balancing Business with Environment*. P. Murphy (Ed.). Conference Proceedings, University of Victoria, Canada, p.243-254.

Koster, E., 1995. Exchanging experiences and perspectives. In: *Museums and the Paradox of Change – A Case Study in Urgent Adaptation*, R. Janes (Ed.), Glenbow Museum, Canada, p.134-137. [An award-winning, enlarged, second edition of the same title by R. Janes was jointly published by the Glenbow Museum and University of Calgary Press in 1997.]

Koster, E., 2009. Sail and bail: navigational tips for museums during economic turmoil. *Hand to Hand*, Association of Children's Museums, Spring, p.1-2/11-13.

PUBLICATIONS ON THE ANTHROPOCENE

Having continued involvement with the geological sciences alongside museum appointments, and with the seeds of ideas sown in earlier publications about the meaning of relevance, this is a unique body of publications about the responsibilities of the geology and museum professions to tackle the largest challenges facing environments and societies in this century and beyond.

Davis, J., Gurian, E. and Koster, E., 2004. Timeliness: a discussion for museums. *Curator: The Museum Journal*, v.46, no.4, p.353-361.

Koster, E., 1997. The human journey and the evolving museum. *Geological Association of Canada*, *Geoscience Canada*, v.24, no.2, p.73-76.

Koster, E., 2007. The public value of science museums: past, present and future. *Museum Communication*, National Museum of Nature and Science, Tokyo, February 23-24, Program and Abstracts, p.6-7.

Koster, E., 2009. Planning for a sustainable future. In: E. Pastore, *The Future of Museums and Libraries, A Discussion Guide*. Institute of Museum and Library Services, p.19-20.

- Koster, E., 2011. The Anthropocene: an unprecedented opportunity to advance the unique relevance of geology to societal and environmental needs. *Geological Society of London, Geoscientist*, v.21, no.9, p.18-21.
- Koster, E., 2016. From Apollo into the Anthropocene: the odyssey of nature and science museums in an externally responsible context. In: *Museums, Ethics and Cultural Heritage*, B. Murphy (Ed.), Routledge and International Council of Museums, p.228-241.
- Koster, E., 2017. Citizen science: a needed movement for the Anthropocene. In: *Citizen Science*, J. Deutsch (Ed.), Special Edition, Smithsonian Affiliate, p.8.
- Koster, E., 2019. The Anthropocene as our conscience. In: *Designing for Empathy, Perspectives on the Museum Experience*, E. Gokcigdem (Ed.), Rowman & Littlefield, p.344-361.
- Koster, E., 2020a. Introspection: the new imperative. *Special Issue on the Pandemic, Informal Learning Review*, p.21-22.
- Koster, E., 2020b. Relevance of museums to the Anthropocene. *Informal Learning Review*, v.161, p.18-34.
- Koster, E., 2020c. Anthropocene: transdisciplinary shorthand for human disruption of the Earth System. *Geoscience Canada*, v.47, nos.1-2, p.59-64.
- Koster, E., 2021. Paradigm shift to illuminate this disrupted planet. In: *Crisis & Resilience, Exhibition, American Alliance of Museums*, v. 40, no.1, p.100-110.
- Koster, E., In press. Museum relevance in the context of the Earth System, In: *Seize the Moment: Preparing for the Post-Pandemic Museum*, A. Decter, K. Yellis and M. Semmel (Eds.), Routledge.
- Koster, E., In press. Relevance: Rhetoric to Reality. *Special Issue, Informal Learning Review* 169.
- Koster, E., In prep. An Odyssey into the Anthropocene: Curiosity, Concern, Crisis.
- Koster, E., Dorfman, E. and Nyambe, T. 2018. A holistic ethos for nature-focused museums in the Anthropocene. In: *The Future of Natural History Museums*, E. Dorfman (Ed.), Routledge, p.29-48.
- Koster, E., Yalowitz, S. and Watson, B. 2012. Natural history: past, present, future. *Informal Learning Review*, v.113, p.22-24.
- Trautmann, C., Grinell S., Cavendish, K. and Koster, E. 2009. Global warming: next steps for the science center field. *Dimensions, Association of Science-Technology Centers*, September/October, p.16-17, 19.

PUBLICATIONS ABOUT GIANT SCREEN FILMS

Being on the board of the New York chapter of the Society of Association Executives led to reflections about the interdependency of nonprofit organizations. These became a backdrop for contributions to board leadership at a critical point in the evolution of the global giant screen industry, in turn involving unification of two associations and international diplomacy.

Koster, E., 1999a. Edutainment: to be or not to be? *The Big Frame, Giant Screen Theater Association*, v.16, no.2, p.96.

Koster, E., 1999b. Introductory perspective: Giant Screen Films and Lifelong Learning. *Education and Research Committee, Giant Screen Theater Association, International Conference and Trade Show, New York City, September 10*, p.87.

Koster, E., 2000. *Giant Screen Films and Lifelong Learning. Complete Symposium Proceedings, Giant Screen Theater Association*, 107p.

- Koster, E., 2001a. The meaning of our mission. The Big Frame, Giant Screen Theater Association, v.18, no.4, p.80-82.
- Koster, E., 2001b. Not-for-profits must merge missions with social responsibility. Association Executive, New York Society of Association Executives, January/February, p.8-9.
- Koster, E., 2005a. The interdependency of nonprofit organizations. Association Executive, New York Society of Association Executives, January/February, p.22-23.
- Koster, E., 2005b. The power of the giant screen phenomenon. The Big Frame, Giant Screen Theater Association, v.22, no.1, p.10.
- Koster, E., 2005c. Looking back, taking stock, looking ahead. The Big Frame, Giant Screen Theater Association, v.22, no.2, p.10-11.
- Koster, E., 2005d. Looking back (part II), looking ahead (part II). The Big Frame, Giant Screen Theater Association, v.22, no.3, p.10.
- Koster, E., 2006. Vision and teamwork. The Big Frame, Giant Screen Theater Association, v.23, no.1, p.10.
- Koster, E., 2020. Remembering 2005: a pivotal year in the evolution of the giant screen industry. LF Examiner, v.23, no.4, p.1, 4-7, 13.
- Koster, E. and Nucci, M. 2008. Connecting society with science: the greater potential of giant screen experiences. Preparatory material for NSF-funded symposium, Giant Screen Cinema Association, September 8, 142p. [<https://www.giantscreencinema.com/Member-Center/Symposium-Materials>]

INVITED BOOK ENDORSEMENTS

Roman & Littlefield: Randi Korn, 2018, *Intentional Practice for Museums: A Guide for Maximizing Impact*, 232p.

For two decades, Korn has been the museum sector's thought and practice leader around the why and how of intentional impact. With the sector's attention to many community and environmental contexts rising fast, aiming for and achieving intentional impact has arguably ceased to be an option. In the Anthropocene, here is a tried-and-tested toolkit to guide museums toward the optimization of the external return on their investments.

Routledge, Taylor & Francis Group: Robert Janes, 2016, *Museums without Borders: Selected Writings of Robert R. Janes*, 411p.

This compilation alerts the museum sector to new horizons in its collective conscience. With the blurring of traditional boundaries and the rise of a 'glocal' mindset, innovative attention to pressing societal and environmental challenges has become vital. Here, Janes draws on four decades as a scholar-practitioner to deliver a wake-up call for our sector to unleash its toolkit as a force for good in the Anthropocene.

The University of Chicago Press, Karen Rader and Victoria Cain, 2014, *Life on Display: Revolutionizing US Museums of Science and Natural History in the Twentieth Century*, 467p.

Museums of nature and science are well served by knowing the twentieth-century development of their sector in cause-and-effect terms. The journey continues. In the pivotal twenty-first century, museums of nature and science are being called upon to illuminate the interdependency between Earth and human affairs. This timely book provides a widely referenced baseline to inform the ongoing innovation of these institutions toward their optimal states of external relevance and internal sustainability.

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